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Record

June 25, 2004

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Treasuring the Past — Washington University in St. Louis — Shaping the Future

Celebrating 150 Years

Thought control Human subjects play real mind games

By Tony Fitzpatrick

For the first time in humans, a team headed by University researchers has placed an electronic grid atop patients' brains to gather motor signals that enable the patients to play a computer game using only the signals from their brains.

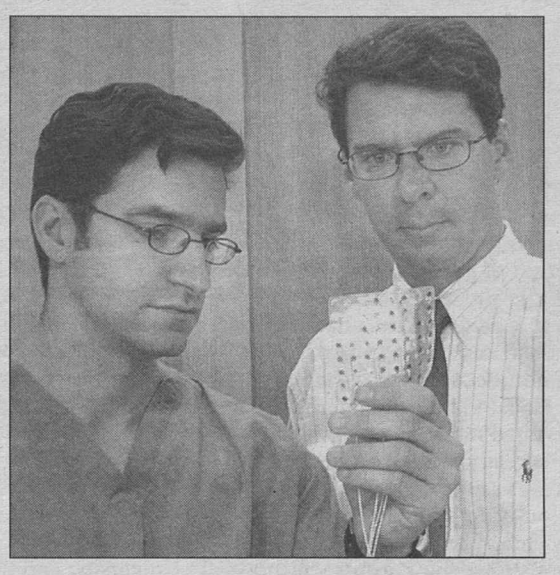
The use of a grid atop the brain to record the organ's surface signals is a brain-machine interface technique that uses electrocorticographic (ECoG) activity — data taken invasively directly from the brain surface. It is an alternative to the status quo, used frequently when studying humans, called electroencephalographic activity (EEG) — data taken noninvasively by electrodes on the skull.

The breakthrough is a step toward building biomedical devices that can control artificial limbs, enabling the disabled to move a prosthetic arm or leg just by thinking about it. The study was published in the June 8 issue of the *Journal of Neural Engineering* and was partially funded by the National Institutes of Health.

Eric C. Leuthardt, M.D., a WUSTL neurosurgeon at Barnes-Jewish Hospital, and Daniel Moran, Ph.D., assistant professor of biomedical engineering in the School of Engineering & Applied Science, performed their research on four adult epilepsy patients who had the grids implanted so that neurologists could find the area in the brain serving as the focus for an epileptic seizure, with hopes of removing it to avoid future seizures. To do this, the patients and their doctors must wait for a seizure.

With approvals from the patients and the School of Medicine Institutional Review Board, Leuthardt and Moran connected the patients to a sophisticated computer running a special program known as BCI2000 (developed by their collaborators at the Wadsworth Center, a state health laboratory in New York) that involves a video game linked to the ECoG

See **Brain**, Page 6



Eric C. Leuthardt, M.D. (left), a WUSTL neurosurgeon at Barnes-Jewish Hospital, and Daniel Moran, Ph.D., assistant professor of biomedical engineering in the School of Engineering & Applied Science, examine an electronic grid that is placed directly on the brain.

COURTESY PHOTO

JOE ANGELES

As part of the Global Olympic Torch Relay on June 17 at Francis Field, E. Desmond Lee passes the flame to former Bears volleyball coach Teri Clemens as Chancellor Mark S. Wrighton looks on.

Francis Field rededication, torch relay mark end of Sesquicentennial

By Andy Clendennen

The letter from the U.S. Olympic Committee might have been just what Teri Clemens needed.

Laid up in Barnes-Jewish Hospital with a persistent health problem that hastened her retirement from coaching the Bears volleyball team, Clemens received the letter from the USOC in March.

Friends and family gathered around as they read the letter asking Clemens to be a torchbearer in the 2004 Global Olympic Torch Relay.

And Clemens cried.

"I think it helped me so much to get through it, because I couldn't even walk at the time, I was in a wheelchair," said Clemens, who coached the Bears to seven Division III national titles, including six straight from 1991-96. "I realized that I had four months to train. It was really unbelievable to find out."

After some rehab, Clemens stepped onto Bushyhead Track at Francis Field on June 17 to run her leg of the torch relay. St. Louis philanthropist E. Desmond Lee

See **Torch**, Page 4

Klein named executive vice chancellor for administration

John E. Klein, J.D., chairman and former president and chief executive officer of Bunge North America Inc., will become executive vice chancellor for administration at the University, according to Chancellor Mark S. Wrighton. The appointment is effective Sept. 1.

"I am delighted that John Klein has agreed to join our top management team as our executive vice chancellor for administration," Wrighton said. "His long and successful tenure as the top corporate officer at Bunge North America brings extraordinary experience and leadership skills to help us continue the upward trajectory of the University.

Klein

"Washington University is indeed fortunate to attract him and to benefit from his extensive management skills."

"I look forward to joining Washington University and becoming involved in academia after a 28-year business career with Bunge," Klein said. "Since we moved to St. Louis in 1990, I have been most impressed with my contacts with Washington University and am very pleased to have been offered this opportunity to become a part of such a vital institution with such great students, faculty and administrators and such a strong national reputation."

Klein serves as chairman of Bunge North America, a major agri-business company with more than 100 grain-elevator and grain-processing facilities and 4,000 employees in North America.

He was president and chief executive officer of Bunge North America from 1985-2003.

Klein had a variety of international assignments with Bunge in Belgium, Holland, the United Kingdom, Brazil and Argentina from 1976-1981, before returning to New York City in 1981 and receiving rapid promotions from vice president, to senior vice president, to executive vice president, and to president.

Klein moved Bunge North America's corporate headquarters to St. Louis from New York in 1990.

Klein will be the University's chief administrative officer, with responsibility for the University's Central Fiscal Unit (CFU), including finance and administration, administrative information technology, facilities, human resources and other administrative units that serve the University.

See **Klein**, Page 7

Eye drops may prevent glaucoma in African-Americans

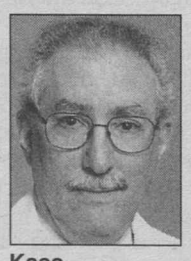
By Jim Dryden

Eye drops that reduce elevated pressure inside the eye can delay or prevent the onset of glaucoma in African-Americans at high risk for developing the disease, according to a study led by researchers at the School of Medicine and the University of Maryland Medical Center.

The researchers said it is important to identify African-Americans with elevated eye pressure so they can receive prompt medical treatment.

The results are reported in the June issue of *Archives of Ophthalmology*.

"This analysis of the data revealed both good news and bad news," said Michael A. Kass, M.D., national chair of the 22-center study and head of the Department of Ophthalmology and Visual Sciences at Washington University. "African-Americans do better when they are treated with pressure-lowering drops, but even with treatment, they tend to have a higher risk than other groups."



Kass

Of the African-American study participants who received the pressure-lowering eye drops, 8.4 percent went on to develop glaucoma.

By comparison, 16.1 percent of the African-American study participants who did not receive the eye drops went on to develop the disease.

The African-American participants were part of a larger study called the Ocular Hypertension Treatment Study (OHTS). During the original OHTS study, 1,636 subjects between 40-80 were divided into two groups. All had elevated pressure in the eye — ocular hypertension — but did not have glaucoma, and about half were randomly selected to use eye drops daily.

The others were closely monitored by eye specialists for a minimum of five years but did not use drops.

This new analysis looked in detail at the outcomes for the 408 African-Americans who

See **Eyes**, Page 6

This Month In WUSTL History

July 1, 1904

The Olympic Games began at Francis Field after controversy about the location. Originally scheduled to be held in Chicago, the Louisiana Purchase Exposition threatened to provide competing entertainment. Only 13 countries sent teams to compete because of ongoing foreign conflicts and transportation issues.

This feature has been included in each 2003-04 issue of the Record *in observance of Washington University's 150th anniversary.*

Virgil professorship in Olin School established

BY BARBARA REA

In honor of a very special couple, $1.5 million has been raised by friends and colleagues to establish the Geraldine J. and Robert L. Virgil Professorship in Accounting and Management at the Olin School of Business.

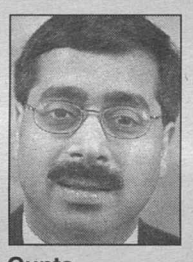
Chancellor Mark S. Wrighton announced the gift, which includes $300,000 from the University's Sesquicentennial Endowed Professorship Challenge.

Mahendra Gupta, Ph.D., professor of accounting, will be installed as the first holder in a ceremony planned for later this year.

"For more than four decades, Bob Virgil has been an integral part of Washington University, and his contributions to the institution he loves are unparalleled," Wrighton said.

The relationship began as a graduate student; Virgil earned a master's degree in 1960 and a doctorate in 1967. While working toward his D.B.A., Virgil joined the business school faculty as an instructor. He became a full professor of accounting and held that title throughout his tenure as dean, which he assumed in 1977. A gifted professor, he was voted Teacher of the Year nine times.

He also served as vice chancellor for student affairs for a brief period in the 1970s. In 1992, Virgil was named executive vice chancellor for university relations, where he was responsible for alumni and development programs, human resources and public affairs.



Gupta

As dean, Virgil guided the Olin School through a vibrant period of growth. From 1977-1993, when he officially retired from the University, Virgil shaped Olin into a nationally known school; grew the endowment from $200,000 to more than $75 million; secured the resources to build John E. Simon Hall; built a large international student presence; recruited many outstanding faculty; deepened corporate relationships; created such important new initiatives as the executive master of business administration program; and enhanced the curriculum with new endeavors in experiential learning, which are now a distinguishing feature of the school.

"Bob Virgil's contribution to the development of the Olin School was both foundational and monumental," said Stuart I. Greenbaum, Ph.D., dean of the Olin School and the Bank of America Professor.

"Progress of the past nine years are linear extensions of the building blocks set in place during his tenure as dean. His commitment and vision were indispensable."

In announcing Gupta's appointment as the professorship's initial holder, Greenbaum said, "It is a pleasure to recognize Mahendra Gupta's contributions in this way. He is an excellent teacher and has made many important discoveries in his fields of expertise."

Gupta's academic interests cover issues in strategic cost management, performance measurement, and more specifically, strategic implications of cost information in the manufacturing, health-care, marketing and service sectors. He has been published in a number of major scholarly journals in his field, such as *Accounting Review* and the *Journal of Accounting and Economics*, and has served on the editorial boards of several journals in the accounting profession.

Professional memberships include the American Accounting Association and the Institute of Management Accountants. In addition, he has served as a consultant for a range of manufacturing firms and governmental agencies.

Gupta has been recognized several times for his teaching with both the Reid M.B.A. and the Reid E.M.B.A. Teacher of the Year award. In 1996-97, he was named the Marcile and James Reid Professor.

He earned a master's degree from Carnegie Mellon University and a doctorate degree from Stanford University.

Throughout Virgil's academic career, he has served on many critical committees, such as the Faculty Senate Council and the Committee on the Recruitment of Underrepresented Faculty. In addition, he participated in the University's Project 21 long-range planning initiative.

"Bob Virgil's vision, leadership, inspiration, love and support for Washington University are virtually unmatched," Wrighton said. "We are very grateful to the friends who have made this well-deserved tribute to Bob and Gerry."

Chancellor Emeritus William H. Danforth, a longtime friend and colleague, added that Virgil has left an indelible mark on the University — even the Sesquicentennial.

"Bob Virgil's contributions are great, and he continues to serve the University unselfishly," Danforth said. "Even as he embarked on a second career in the early 1990s as a partner in the investment firm of Edward Jones, Bob's relationship with us has remained deep and strong."

Wrighton appointed Virgil to lead the planning for the University's 150th anniversary, and he has overseen the implementation of those plans.

The University's gratitude and recognition of Virgil's contributions include the Dean's Medal, awarded to both Bob and Gerry from the Olin School in 1996; an endowed scholarship in their name on the occasion of his retirement from the University; and the Search Award, given by the William Greenleaf Eliot Society in 2001. Recently he received a Distinguished Alumni Award from the Olin School.

In 1993, Virgil embarked on a second career as a partner in Edward Jones, the St. Louis-based financial service firm, responsible for management development. During his decade there, it more than tripled in size, with over 9,000 offices and 6 million customers in America, Canada and the United Kingdom.

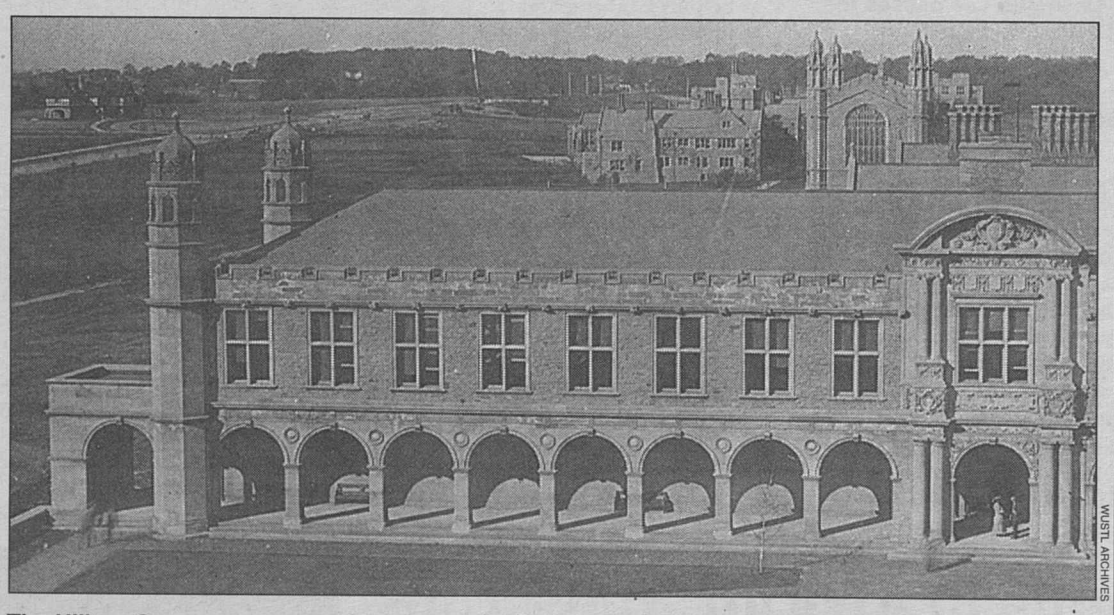
"Bob Virgil's leadership abilities are evident in both of his careers," Greenbaum said. "He has succeeded brilliantly in two very different environments, and both the University and Edward Jones have benefited greatly from his professional expertise."

Gerry's efforts and activities on campus have complemented Bob's and have created lasting connections.

The Virgils are also involved in a number of organizations and institutions in the community. She is a member of the Philanthropic Educational Organization and is a supporter of Kirkwood Meals on

See **Gupta**, Page 6

PICTURING OUR PAST



WUSTL. ARCHIVES

The Hilltop Campus was somewhat barren in 1911 (above). Brookings Hall had been finished, and a few buildings to the north of Brookings (not pictured) were completed. In the upper-left corner is Blewett Hall, then the chancellor's residence. The next decade would prove to be fruitful for many facets of the University. Student life grew immensely — by the 1916-17 academic year, 60 student groups were on the Hilltop Campus. In 1915, the Washington University Union sponsored its first events, aimed at expanding social interaction among alumni, faculty and students. The University grew academically as well, with the 1913 hiring of Tyrell Williams as the School of Law's first full-time faculty member. Some earlier staples of the University also met their ends during this time. After first being consolidated in 1915, Smith Academy (the boys college preparatory division of the University) and the Manual Training School — two of the University's three secondary divisions — were closed in June 1917. Some Smith Academy families would go on to found a successor school that is still going strong today — St. Louis Country Day School, which has since merged with Mary Institute.

WASHINGTON UNIVERSITY IN ST. LOUIS 150 years 1853–2003 *Treasuring the Past Shaping the Future*

Washington University celebrated its 150th anniversary in 2003-04.

KEVIN LOWDER

Christopher I. Byrnes, Ph.D., dean of the School of Engineering & Applied Science, presents a plaque to Shirley J. Dyke, Ph.D., at her installation as the Edward C. Dicke Professor of Engineering May 4.

Dyke installed as Dicke professor of engineering

BY TONY FITZPATRICK

Shirley J. Dyke, Ph.D., was installed as the Edward C. Dicke Professor of Engineering at a May 4 ceremony in Uncas A. Whitaker Hall for Biomedical Engineering.

A civil engineer, Edward C. Dicke was responsible for many of the buildings which have become area staples. Dicke's spirit and vitality continue today through the professorship, which was established in 1991.

After graduating at the top of his class in 1900, Dicke went to work for a local engineering consulting firm and, eventually, a number of railroads. The opportunity to remain in St. Louis permanently presented itself when Dicke joined the firm of Fruin-Colnon in 1908.

Twenty years later, Dicke and three other engineers — all graduates of the University — reformed the company as Fruin-Colnon Construction Co.

At 70, Dicke retired from Fruin-Colnon in 1948. The company, now called Fru-Con Construction Corp., remains one of the largest engineering construction firms in the state. Dicke died in 1976.

Dyke, a Chicago native, earned a bachelor's degree in aeronautical and astronautical engineering from the University of Illinois at Urbana-Champaign in 1991, and a doctorate in civil engineering from the University of Notre Dame in 1996. Dyke became assistant professor of civil engineering in 1997 at Washington University and is now a professor of civil engineering.

Dyke's research efforts have addressed a variety of issues related to "smart" structures, including innovative control technologies for natural hazard mitigation, and structural health monitoring and damage detection.

With support from the School of Engineering & Applied Science, Dyke established the Washington University Structural Control and Earthquake Engineering Laboratory (WUSCEEL) in 1997.

WUSCEEL is recognized internationally for contributions in structural control and health monitoring, a result of strong collaborations with both students and colleagues.

As one of the first researchers of the implementation of magnetorheological (MR) fluid dampers for vibration control, Dyke's research has made significant contributions toward developing innovative hazard mitigation measures, facilitating the evolution of a new era of civil engineering structures.

The formulation and validation of nonlinear control algorithms that effectively use the unique traits of MR dampers propelled this technology forward, attracting international attention.

Moreover, her work has shown the advantages of semiactive control schemes, recently focusing on controlling torsional responses

See **Dyke**, Page 6

Higher Learning Commission to visit campus in September

BY ANDY CLENDENNEN

Washington University will undergo a comprehensive evaluation visit Sept. 27-29 by a team representing the Higher Learning Commission of the North Central Association of Colleges and Schools.

The commission has accredited the University since 1913; the most recent accreditation took place in 1994.

The Higher Learning Commission is one of six accrediting agencies in the United States that provides institutional accreditation on a regional basis.

The commission accredits approximately 1,000 institutions of higher education in a 19-state region.

After a lengthy period of review, the University has been engaged in the process of writing the self-study since fall 2003. The self-study will address the requirements and criteria for accreditation.

The team will review the institution's ongoing ability to meet the commission's Criteria for Accreditation and General Institutional Requirements.

The public is invited to submit comments regarding the University, which must address substantive matters related to the quality of the institution or its academic programs. Written, signed comments must be received by the commission no later than Aug. 27.

Send comments to:

Public Comment on Washington University
Higher Learning Commission
North Central Association of Colleges and Schools
30 N. LaSalle St.
Suite 2400
Chicago, IL 60602

Comments should include the name, address and telephone number of the person making the comment.

School of Medicine Update

Liposuction won't prevent diabetes, heart disease

By Jim Dryden

Liposuction is no substitute for dieting when it comes to preventing diabetes, hypertension and heart disease.

Reporting in the June 17 issue of *The New England Journal of Medicine*, University researchers found that removing abdominal fat by using modern liposuction techniques did not provide the metabolic benefits normally associated with similar amounts of fat loss induced by dieting.

Excess abdominal fat is associated with a defect in insulin's ability to regulate sugar and fat metabolism, which can lead to metabolic diseases such as type 2 diabetes, abnormal blood lipids, hypertension and heart disease.

"Despite removing large amounts of subcutaneous fat — about 20 percent of our subject's total body fat mass — there were no beneficial medical effects," says Samuel Klein, M.D., the Danforth Professor of Medicine and Nutritional Science, and the study's principal investigator. "Had these subjects lost this much fat by dieting, we would have expected to see marked improvements in insulin sensitivity and other risk factors for heart disease."

Klein and his colleagues studied 15 obese women with excessive abdominal fat — eight with normal glucose tolerance and seven with type 2 diabetes — before abdominal liposuction and again 10-12 weeks after surgery.

The sensitivity of the liver, muscle and fat tissue to insulin was measured by performing an insulin clamp procedure.

The clamp technique allows scientists to measure insulin's major metabolic effects, such as how well insulin suppresses liver glucose production and fat breakdown and how well insulin stimulates glucose uptake by muscle tissue.

The researchers also measured triglyceride and cholesterol levels, blood pressure and other risk factors for heart disease.

"It was remarkable how similar the results were before and after the procedure," Klein said. "There were no changes in insulin sensitivity, blood lipids, blood pressure or inflammatory markers associated with coronary heart disease in any of our study subjects."

On the plus side, the study did demonstrate it was possible to safely remove large amounts of fat.

"We confirmed that it is possible to do large-volume liposuction safely," said co-investigator V. Leroy Young, M.D., a private-practice physician and former professor of plastic and reconstructive surgery at the University. "In the past, we usually removed no more than about five liters of fat, but in this study we showed you can safely remove four times that amount."

Although liposuction does not have medical benefits, the study does provide important clues about how diet-induced weight loss improves health and lowers the risk of diabetes and heart disease.

"Liposuction surgery removes entire fat cells located under the skin but doesn't reduce the size of remaining fat cells or decrease the fat that accumulates in other tissues, such as muscle tissue, the liver and the heart," Klein said. "It may be necessary to shrink fat cells and reduce fat content in other key tissues.

"This study underscores the need for the 'old-fashioned' method of eating less and exercising more to treat obesity. The metabolic benefits of weight loss seem to be related to achieving a negative energy balance — consuming fewer calories than you burn — rather than simply eliminating fat cells by liposuction."

BOB BOSTON

Fun in the sun School of Medicine employees soaked up the summer sun while enjoying food, music, games, prizes and Ted Drewes frozen treats at the School of Medicine's Employee Appreciation Day Picnic at Hudlin Park. More than 4,000 medical school employees attended the June 11 event.

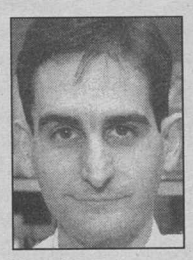
Muglia named chief of pediatric endocrinology

By Kimberly Leydig

Nationally renowned endocrinologist Louis J. Muglia, M.D., Ph.D., associate professor of pediatrics, has been named chief of the Division of Pediatric Endocrinology and Metabolism.

"Lou Muglia is one of those rare triple-threat pediatric scholars," said Alan L. Schwartz, Ph.D., M.D., the Harriet B. Spoehrer Professor and head of pediatrics. "He is an outstanding clinician in pediatric endocrinology, metabolism and diabetes; he is an engaging and passionate teacher revered by trainees in the clinical sphere and in the research laboratory; and Lou is a creative and imaginative investigator in neuroendocrinology.

"We are most fortunate to have him as division director."



Muglia

Muglia, who also is an associate professor of molecular biology and pharmacology and of obstetrics and gynecology, is nationally recognized for his studies of the roles of neuroendocrine regulatory systems in physiology and development.

He has developed powerful mouse systems to explore the role of the neuropeptide hormones that are produced during fetal and postnatal development by an infant's hypothalamus, an area in the brain that controls involuntary functions such as body temperature and hormone release.

In recent years, Muglia has extended his interest to defining the mechanism for the timing of childbirth. Using novel genetic techniques, he has identified the pathway for prostaglandin synthesis that initiates term labor in mice. He has also established that the hormone oxytocin plays a critical role in maintaining pregnancy and in the progression of labor. This neuropeptide stimulates contraction of the uterine muscle.

As division director, Muglia aims to build upon the basic science and clinical research programs within the division. His team is devoted to improving care for children with diabetes mellitus and neuroendocrine disorders — particularly those that arise in association with brain tumors and disorders of bone and mineral metabolism.

"I am honored to lead our division, one with a record of excellence in medical education, research and patient care, in an exceptional Department of Pediatrics," Muglia said. "I am very excited about this opportunity to further enhance our ability to provide outstanding endocrinology and diabetes services to our patients, their families and our referring physicians, while developing the academic careers of the next generation of physician-scientists and physician-educators."

In 1999, Muglia received the Young Investigator Award from the Society of Pediatric Research for his research on the roles of neuroendocrine regulatory systems. The award recognizes the scholarly accomplishment of an individual younger than 40.

Muglia also is a scholar of the Child Health Research Center of Excellence in Developmental Biology at the medical school and a career scholar of the Burroughs-Wellcome Foundation. His clinical interests include a wide variety of endocrine disorders.

He is a member of the national honorary medical society Alpha Omega Alpha, the American Society for Clinical Investigation, the American Association for the Advancement of Science, the Endocrine Society and the Lawson Wilkins Pediatric Endocrine Society.

Muglia joined the University in 1996.

"Ever since then, Lou's profound influence on basic biological research in the Department of Pediatrics and throughout the School of Medicine has talented trainees flocking to his laboratory," Schwartz said. "I have no doubt that he shall lead the division to the very top national level."

Dacey named chairman of neurological board

By Gila Z. Reckess

Ralph G. Dacey Jr., M.D., the Henry G. and Edith R. Schwartz Professor and chairman of neurological surgery and neurosurgeon in chief at Barnes-Jewish Hospital, has been named chairman of the American Board of Neurological Surgery.

Established in 1940, the board sets the standards for training neurosurgeons in the United States and administers certification examinations for those seeking to practice neurosurgery in America. Dacey has served as a director of the board since 1999 and as secretary since 2000.

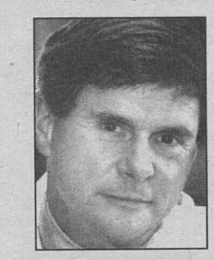
"This position is considered to be the pinnacle award in the field of neurosurgery," said outgoing chairman Arthur L. Day, M.D., professor of neurosurgery at Harvard Medical School and program director of neurosurgery at Brigham and Women's Hospital in Boston.

"It requires someone who's really thoughtful but also very well-balanced and able to deal with the variations that come up in today's tumultuous medical environment. Ralph was chosen because he has all these qualities, and because he has done an excellent job leading the organization as secretary of the board for the past four years."

Dacey is recognized for his long and distinguished career in neurosurgery, but he said the honor of serving as chairman is a particularly gratifying accomplishment.

"Neurosurgery is very complex, and training and certifying neurosurgeons is a terrific responsibility," he said. "We're constantly working to make the board's operations more efficient and more accessible and transparent to the public so that people can have confidence in their specialists."

According to Dacey, this is an exciting time for the organization because it is developing a new process for maintenance of certification. The new approach will be implemented over the next 18 months, and it will require neurosurgeons to regularly become recertified throughout their careers.



Dacey

In addition to having an active general neurosurgery practice and serving as the neurosurgery consultant for the Rams, Blues and Cardinals, Dacey is internationally recognized for his contributions to understanding and treating conditions that affect blood vessels in and around the brain, including aneurysms and blood vessel malformations.

Among his extensive clinical accomplishments, he helped develop a device that uses magnets to guide surgical instruments through the brain and performed the first human magnetic surgery in 1998.

Magnetic surgery allows surgeons to work through small holes in the skull on regions deep within the brain while avoiding damaging other critical brain structures.

Additionally, through basic science research with Hans H. Dietrich, Ph.D., research assistant professor of neurological surgery, Dacey developed a way to study individual, hair-like microvessels located deep within the brain.

Dacey joined the School of Medicine faculty in 1989.

He has held numerous leadership positions within the neurosurgery community, including having served as president of the Congress of Neurological Surgeons and on the editorial boards of the *Journal of Neurosurgery, Neurosurgery, Neurobiology of Disease* and *Perspectives in Neurological Surgery*.

Chandler named director of human resources

By Diane Duke Williams

The School of Medicine has named Legail P. Chandler director of human resources.

Chandler has 27 years of experience in human resource management, many of them at the Medical Campus. She was formerly the human resources information system consultant at the University.

Prior to that position, she served as a director of human resources within BJC Health System and as director of personnel at Jewish Hospital.

Chandler began her new position June 1.

She will direct all aspects of employment, compensation, benefit administration, faculty and staff records, employee relations and School of Medicine customized training. She will also oversee the development of personnel policies and programs.

Chandler earned a bachelor's degree in administrative services from Western Kentucky University in 1977 and a master's degree in information management from Washington University in 1998.

Torch

More than 120 runners carried the flame

– from Page 1

and Michael R. DeBaun, M.D., associate professor of pediatrics and of biostatistics, also carried the torch through portions of campus.

"It's so emotional for me because you represent so many different facets of my own life and everyone else's, not only as an American, but also as a St. Louisan, as a Washington University coach and as a mother of six," Clemens said. "I feel like I'm carrying it for so many different people, as is everyone else. We are only about (120) people, but we are representing thousands and thousands."

The torch relay was the final event of a whirlwind two days that saw several Olympians address attendees of various University youth sports clinics; a training session for torchbearers; and the rededication of historic Francis Field.

The two-day celebration marked the end of the University's yearlong Sesquicentennial festivities.

The events started early June 16 with tennis, basketball, football and baseball clinics for hundreds of area children.

Three-time Olympian and two-time world cross-country champion Craig Virgin then addressed more than 300 of the clinic participants.

He peppered his address with some of his favorite quotes, including "Whether you think you can, or think you can't, you are probably right," and "Life is about the journey, not just the destination."

He also showed video highlights of his career and his Olympic experiences.

Throughout, he made it clear that in order to reach great heights, everyone — not just Olympic athletes — needs to set goals, and use the six-step process including commitment, discipline, preparation, persistence, focus and execution to reach them.

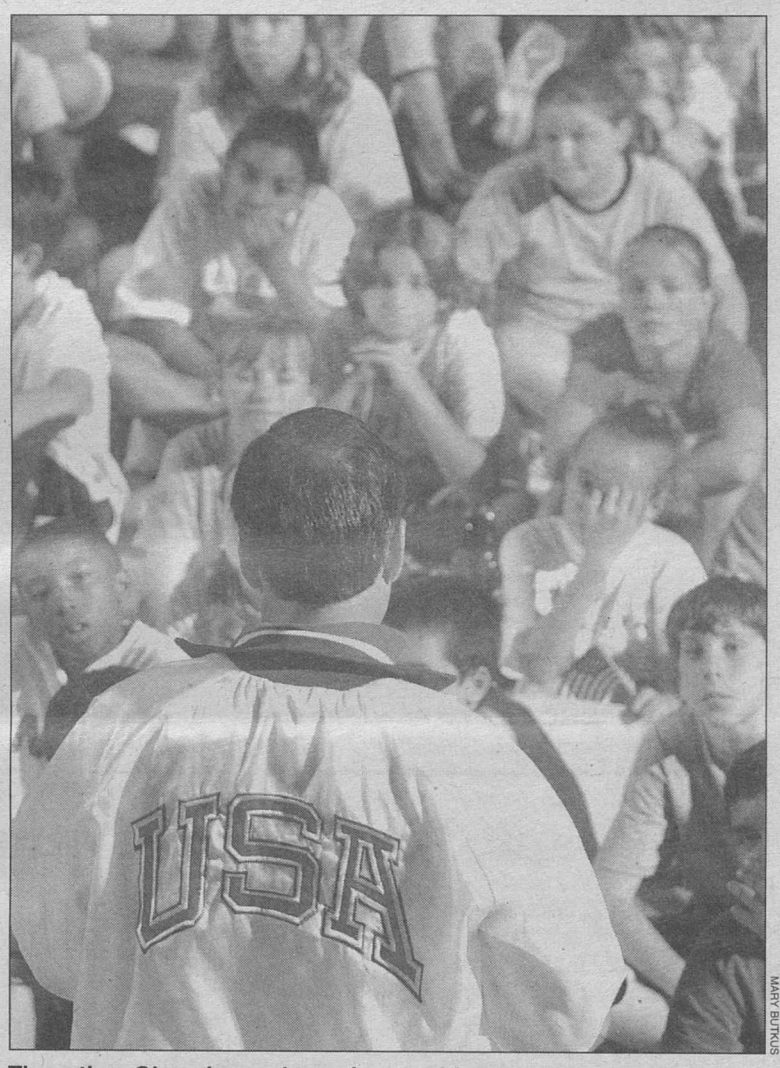
Following Virgin was Jill Savery, a 1996 gold medalist in synchronized swimming and an eight-time world champion.

"To me, you start dreaming when you are a child," said Savery, who started dreaming in 1984 when Mary Lou Retton took the gymnastics world by storm. "If you don't start then, I think it's too late. And the important thing to tell kids is that life isn't about the Olympics. Anything you try to achieve in life, I think the same ideals apply.

"The motivation needed, the goal-setting needed, it applies to everything. Some kids aren't athletic — not everyone can be an Olympian — but it's about life's lessons. Finishing school, whatever it is. I think it's important at a young age to learn that, and the Olympics is a great stage to teach that."

JOE ANGELES

Teri Clemens carries the torch on Bushyhead Track on Francis Field as part of her leg of the Global Torch Relay.



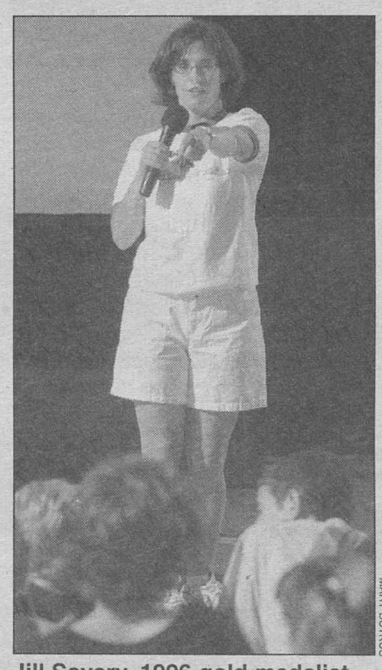
MARY BUTKUS

Three-time Olympian and two-time world cross-country champion Craig Virgin addresses more than 300 children attending the University's various sports clinics June 16.

Field rededication

The rededication of Francis Field, site of the track and field events for the 1904 Olympics, was moved inside because of inclement weather. More than 500 people didn't mind, though, as they sat on the bleachers of the Field House in the Athletic Complex and heard comments from Chancellor Mark S. Wrighton; Charlie A. Dooley, St. Louis County executive;

Jeff Rainford, chief of staff for St. Louis Mayor Francis G. Slay; John Schael, director of athletics at the University; Robert Marbut, chair of the USOC's National Governing Bodies' Council; and Virgin and fellow Olympian Wendy Williams, who won the platform diving bronze medal in 1988.



MARY BUTKUS

Jill Savery, 1996 gold medalist and eight-time world synchronized swimming champion, makes a point to children attending sports clinics June 16.

"We believe that intercollegiate athletics at the Division III level are very important … and are in the same tradition of the Olympics," Wrighton said. "We play to win, but we are amateurs. We are an institution that supports the student-athlete. …

"We are proud to be rededicating our field today, we are proud that you are here with us to help us celebrate, and we are very grateful to have the opportunity to participate in the Olympic activities this summer."

After the rededication, many of the torchbearers attended a quick training session, where USOC members went over the various do's and don'ts.

Perhaps surprisingly, falling down, dropping the torch or starting fires wasn't at the top of the "don'ts" list.

"The thing that most people do wrong is run too fast," said Ken Meyerhoffer, spokesman for the USOC advance team that was in St. Louis. "People get excited and get their adrenaline going, and they start running too fast. You don't want to outrun the camera truck."

A truck with both still and video photographers leads the runners on their journey. And to help stay the course, the USOC provides several escort runners to run with the actual torchbearers to give advice when needed.

At the training session, torchbearers also received their uniforms, including shorts, shirts, socks, bandanas and hats; had a chance to buy their torches; and picked up a few goodie bags from various torch relay sponsors.

Parking and transportation services pitched in by providing six Washington University shuttle vans or buses to help all torchbearers get to where they needed to go throughout the city.

"We are really excited to be involved because of the global nature of the event and also because of the University's Olympic history," said Lisa Underwood, manager of parking and transportation services.

"We appreciate having the opportunity to provide the transportation for this event."

Then, on June 17, came the torch's entrance. Shortly after 8 p.m., St. Louis philanthropist and 1940 School of Business alum E. Desmond Lee carried the torch into Francis Field via the Big Bend Boulevard entrance.

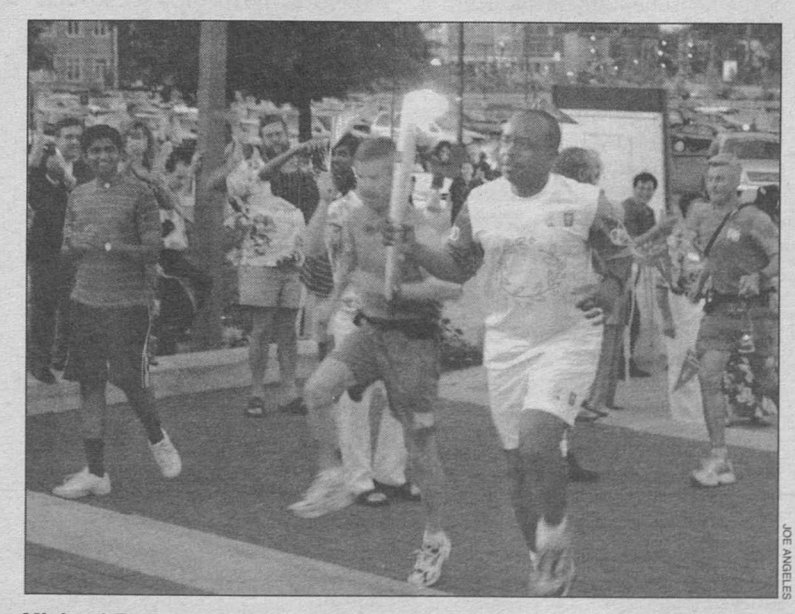
Lee ran around the stadium side of the track and handed the torch to Clemens, who was waiting under the Francis Field gates.

Clemens took the flame back around the stadium side of the track before heading out of the field and sending the flame on its way through University City.

"The Global Torch Relay is such a great opportunity for everyone in St. Louis to be linked to the 2004 Olympic games," said Leah Merrifield, director of community relations.

"St. Louisans from downtown to many different areas of St. Louis County were able to see the Olympic flame as it was carried through our neighborhoods by torchbearers, many of whom have amazing stories of strength and courage."

The flame came back to campus via down Skinker Boulevard, where Michael R. DeBaun, M.D., associate professor of pediatrics and of biostatistics, carried the torch up the steps of Brookings Hall before passing the flame to those who would take it into Forest Park for a celebration that included several past Olympians, music by the Saint Louis Symphony Orchestra and fireworks.



JOE ANGELES

Michael R. DeBaun, M.D., associate professor of pediatrics and of biostatistics, carries the torch up the Brookings Hall steps.

University Events

Radiology Conference • Mediation Training

"University Events" lists a portion of the activities taking place June 25-July 22 at Washington University. Visit the Web for expanded calendars for the Hilltop Campus (calendar.wustl.edu) and the School of Medicine (medschool.wustl.edu/calendars.html).

Lectures

Friday, June 25

8:30 a.m.-5:30 p.m. School of Law Alternative Dispute Resolution Training. Family Mediation Training with Civil Mediation Training. C.J. Larkin, lecturer in law and administrative dir., ADR programs in the School of Law. (Continues 8:30 a.m.-5:30 p.m. June 26 for family and civil mediation training and 8:30 a.m.-5:30 p.m. June 27-29 for family mediation training.) Cost for family mediation training: $950, $850 for nonprofit; cost for civil mediation training: $500, $450 for nonprofit. Anheuser-Busch Hall. 935-4125.

9:15 a.m. Pediatric Grand Rounds. Resident Awards Ceremony and Graduating PL-3 Case Presentations. Clopton Aud., 4950 Children's Place. 454-6006.

Tuesday, June 29

Noon. Mallinckrodt Institute of Radiology Conference. "Artifacts in Nuclear Medicine." Jerold Wallis, assoc. prof. of radiology. Scarpellino Aud., 510 S. Kingshighway Blvd. 362-2866.

Friday July 9

7:15 a.m.-4:30 p.m. School of Medicine Cerebral Palsy Course. "Building the Road to Independence: A Novel Approach to Cerebral Palsy for Parents and Caregivers of Children with Cerebral Palsy." (Continues 7:30 a.m.-4:45 p.m. July 10.) Co-sponsored by the Pediatric Neurology Cerebral Palsy Center. Cost: $175 for physicians, $125 for allied health professionals, $100 for non-medical attendees. Eric P. Newman Education Center. To register: 362-6891.

Saturday, July 17

7:45 a.m.-3:30 p.m. Oncology CME Course. "ASCO Presentations Review." Cost: $45. The Ritz-Carlton, St. Louis, 100 Carondelet Plaza. To register: 362-6891.

Monday, July 21

Noon. Pathology Lecture. "Dynamic Circulation of Hematopoietic Stem Cells: Implications for Stem Cell Function." Amy Wagers, dept. of pathology, Stanford U. Eric P. Newman Education Center. 362-7440.

Staff Day fun

Holleran receives Gloria White award in ceremony

BY ANDY CLENDENNEN

Marcia Holleran joined the Department of Earth & Planetary Sciences in Arts & Sciences as an administrative specialist in 1991. And there she has stayed for the past 14 years.

Along the way, she has risen in the ranks while at the same time remaining aware of what makes any successful department work — the students.

Holleran, now grants, budgeting and accounting supervisor for the department, was honored with the 2004 Gloria W. White Distinguished Service Award in a May 24 Staff Day ceremony in Edison Theatre.

"Marcia has been an amazing staff member in earth & planetary sciences, showing a great deal of initiative and intelligence in approaching and successfully completing all of her jobs," said Raymond E. Arvidson, Ph.D., the James S. McDonnell Distinguished University Professor and chair of earth & planetary sciences.

"We are lucky to have her work with us on our drive to attain excellence in all that we do."

One faculty member described Holleran as "the star in a department of dedicated, loyal and talented individuals."

A graduate student stated that she is "a rock of stability in an all too often transitional, temperamental and subjective academic environment."

Other students have shared experiences when Holleran would repeatedly follow up with graduate students to turn in paperwork or take care of department requirements so that they wouldn't inadvertently sabotage themselves further down the road.

Time and time again, students spoke of her "shepherding students through the program," and her genuine concern for students, that they believe is beyond the scope of her job.

Her broad responsibilities include: supervision of the submission process for approximately 100 research proposals and contracts, administrative support for approximately 80 funded research grants; administrative support of the academic and curricular requirements for faculty, graduate students and undergraduate students; and various other duties.

> "Marcia has been an amazing staff member in earth & planetary sciences, showing a great deal of initiative and intelligence in approaching and successfully completing all of her jobs. We are lucky to have her work with us on our drive to attain excellence in all that we do."
>
> RAYMOND E. ARVIDSON

Staff Day also featured many events for Hilltop Campus personnel to participate in.

Student Fianancial Services won the volleyball tournament, and public affairs took the softball trophy.

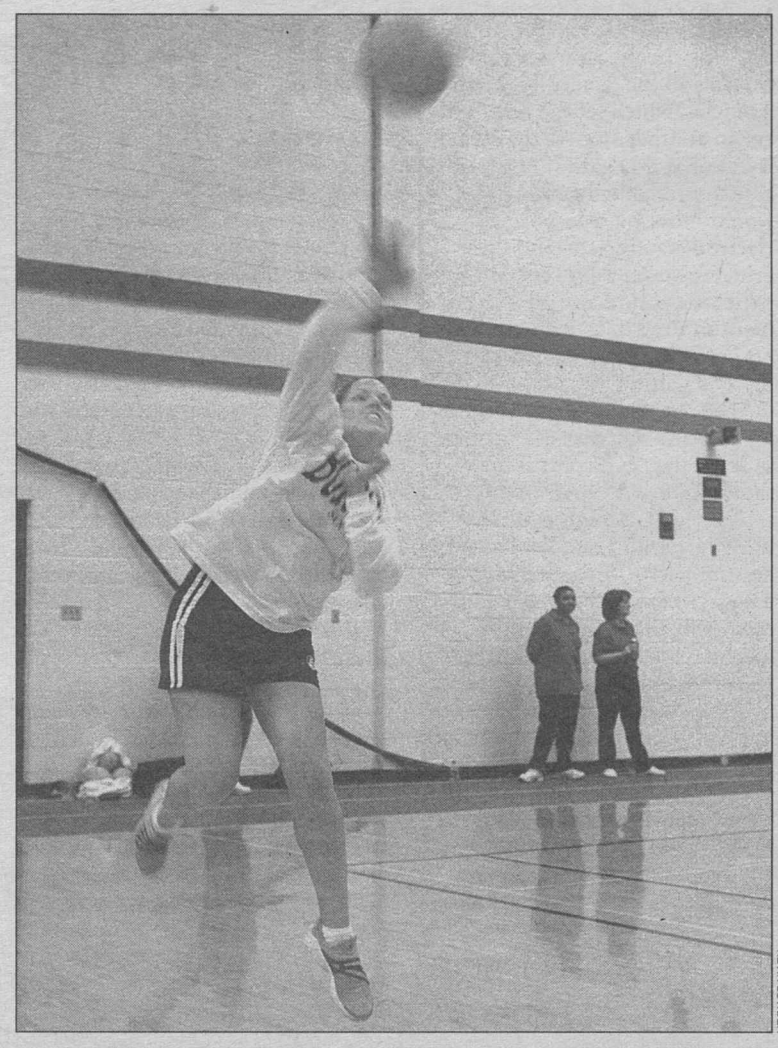
The golf tournament had three different divisions. Winning the coed flight for the third time in four years was the team of Joe Angeles and Terri Nappier, shooting a 34.

Sarah Melson and Dannette Hutton teamed to win the women's division with a 43, while Randy Mariani and Joe Sklansky shot a 34 to win the men's title.

University staff members later gathered in Bowles Plaza for the grand-prize drawing and Ted Drewes frozen treats.

The University also held a canned-food drive in conjunction with Staff Day.

According to the St. Louis Area Food Bank, University employees collected 382 pounds of food, which provides approximately 255 meals for needy families.



KEVIN LOWDER

MARY BUTKUS

Above, Marcia Holleran was the winner of the 2004 Gloria W. White Distinguished Service Award in a May 24 Staff Day ceremony in Edison Theatre. Holleran is grants, budgeting and accounting supervisor for the Department of Earth and Planetary Sciences in Arts & Sciences.

At left, Jessie Groff of the Student Financial Services volleyball team shows off the form that helped her team win the volleyball crown on Staff Day.

MARY BUTKUS

Above (from left) Pat Smith, Stacy Seibert and Cathy Jo Hanson enjoy a game of bingo in Holmes Lounge on Staff Day.

KEVIN LOWDER

At right, Christina Dreyer admires the view from atop Brookings Hall during Executive Director of University Relations Jim Burmeister's popular campus walking tours, one of the Staff Day activities.

Employees recognized for years of service to University

In a ceremony in Edison Theatre on Staff Day May 24, individuals who have served the University for several years were recognized.

The following people were recognized for 10 years of service:

Roberta Allen, Fannie Batt, Elaine Berland, Deborah Booker, Tracy Brodt, Diane Broste, Sheralyn Brown, Nancy Buchanan, Arika Cannon, Richard Chiles, Brenda Christensen, Mary Cissi, Lucinda Cobb, Nancy Cummings, Kimberly Donermeyer, Holly Edmiston, Jill Edwards, Raymond Ehrhard,

Colleen Erker, Carolyn Gerber, Lynn Giardina, Robert Gibson, Elmer Guy, Janet Hessel, Karen Hudgins, Sandra Jurgenson, Mary Kastens, Paul Klueh, Marcella Knibb, Venus Lay, Richard Lessmann, Denise McCartney, James McDonald, Frederick Melton, Bruce Miller, Diane Mounts, Roy Oppland, Evelyn Pena, Nancy Pope, Gerry Rohde, Judith Ruhland, Mary Rydgig,

Denise Saim, Rose Mary Schultze, Mary Skubic, Eloretta Smith, Laura Spight, Rita Stanley, William Stoll, Jill Stratton, Holly Talir, Terry Thurston, Karl Topp, Vicki Touhey, Holly Weller, Betha Whitlow, David Zar.

The following people were recognized for 15 years of service:

Patricia Agnew, Joseph Angeles, Diane Anthony, Carol Antoniewicz, Matthew Arthur, Barbara Bequette, Georgia Binnington, Rita Boone, Sandra Brennan, Rose Brower,

Gary Broyles, Karen Busch, Felicia Campbell, Martin Cavanaugh, Laura Chauvin, Margie Craig, Jane D'Amico, Teri Dent, Rita Drochelman, Gerry Everding, Nancy Galofre, Phillip Gann, Susan Halvorson, Eric Inazaki, Kathleen Jinkerson, Lovell Johnson, Rhonda Kiely, Larry Kindbom,

Joyce Kniepkamp, Alaine Knote, Nancy Lutz, Douglas March, Linda Marcus, Deborah Marks, James McGuire, Linda Mendel, Dennis Nagy, Patricia Orf, Elizabeth Peterson, Daniel Pickett, Elaine Pittaluga, Mary Politte, Anne Posega, Steven Rackers, Louis Recht, Patrick Reed, Raye Riggins,

Ernestine Robertson, Thomas Rocchio, Noreen Satterlee, Sharon Stahl, Lloyd Vanwinkle, Martha Vicente, David Waddell, Renita Weathersby, William Westerheide, Elizabeth Williams, Rose Windmiller, Christine Wyrick.

The following people were recognized for 20 years of service:

Sam Adams, Christen Bayless, Mary Ellen Benson, Kevin Bradley, Anna Cooper, Faye Douglas, Janet Douglas, Geralyn Fisher, Elizabeth Gavin, Todd Hardt, Richard Heuermann, Mae Hollander, Diane Indelicato, Melvin Ingram, Ronald Janssen, William Jones, Robert Keeney,

Barbara McKay, Rickey Mifflin, William Nolte III, Martin Olevitch, Marilyn Pollack, Barbara Rea, James Sidwell, Susan Slavney, Carole Swindle, Karen Swiney, Nanette Tarbouni, Larry Turnbough, James Venegoni, William Wibbing.

The following people were recognized for 26 years of service:

Sandra Blaylock, Myrna Harbison, David Kilper, Fran Lang, John Schael, Willie Scott, David Straight, Rodney Wegermann.

The following people were recognized for 30 years of service:

David Blasingame, Denise Doner, William Giese, Glen Horton, Debra Jones.

The following people were recognized for 35 years of service:

John Augustin, Janet Bowdry, James Burmeister, Linda Ford, Irma Morose, Thomas Simmons, Pranoat Suntharothok-Priesmeyer, Carolyn Yarber.

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Washington University in St. Louis

Brain

The next step is to test people using 2-D games

– from Page 1

grid.

They then asked the patients to do various motor and speech tasks, moving their hands various ways, talking and imagining. Members of the team could see from the data which parts of the brain correlate to these movements.

They then asked the patients to play a simple, one-dimensional computer game involving moving a cursor up or down toward one of two targets.

Patients were asked to imagine various movements or imagine saying the word "move," but not to actually perform them with their hands or speak any words by mouth.

When they saw the cursor in the video game, they then controlled it with their brains.

"We closed the loop," Moran said. "After a brief training session, the patients could play the game by using signals that come off the surface of the brain. They achieved between 74 and 100 percent accuracy, with one patient hitting 33 out of 33 targets correctly in a row."

The ECoG method takes much less time to learn than the original EEG.

"It takes many months to train using EEG, whereas our approach was done basically in an hour or so," Moran said. "That's because we got the signals from the surface of the brain rather than having to go through the skull."

"To put this in perspective," Leuthardt said, "the previous EEG-based systems are equivalent to a 1908 Wright brothers airplane in regards to speed of learning to achieve control. Right now, with our results, we're flying around in an F-16 jet."

The two note that ECoG has higher spatial resolution, broader bandwidth and higher amplitude than the EEG approach, allowing the use of more electrodes and the gain of higher frequencies, which let the researchers go another step — they tried it out on a 2-D game and were able to predict where the patients would move by seeing which electrodes were active on the grid. However, this group of patients did not control movement in the 2-D game with their brains as the patients had with the 1-D game.

The researchers next want to try patients out with 2-D games to see if they can control the movements with their brains.

They will also implant the ECoG grids into monkeys to see how long they can get reliable data from them, the goal being eventually to develop a brain-machine interface device that will last perhaps up to 10 years, making the choice to have one implanted into a motor-impaired patient's brain practical.

"We are pretty confident that we can get signals from these for many years," Moran said. "There will have to be a rigorous study on monkeys for an indeterminate number of years before we can consider permanent implants in human subjects, but we're really excited about this advance.

"Brain-computer interface research is one of the hottest things going in biomedical engineering today."

"Our work," Leuthardt said, "has significant clinical relevance to potentially improve the lives of people with such disabilities as ALS and spinal cord injuries. Additionally, this type of research is producing some fundamental insights into myriad different fields, ranging from neurophysiology to clinical medicine."

Collaborators on the study were Gerwin Schalk and Jonathan R. Wolpaw, M.D., of the Wadsworth Center, New York State Department of Health, Albany, N.Y.; and Jeffrey G. Ojemann, M.D., of the University of Washington School of Medicine.

Dyke

Research vital for nation's transportation network

– from Page 2

and nonlinear structural systems.

Dyke developed and verified new algorithms for detecting damage in civil structures.

This research emphasized the application of these techniques for long-span bridges, vital structures in our nation's transportation network.

Dyke has authored more than 100 technical articles, has been a visiting professor in Italy, Colombia and Japan, and at the University of Southern California. She is the chair of the American Society of Civil Engineers' Technical Committee on Structural Control, the co-program director for the Mid-America Earthquake Center's education program and is on the board of directors for the American Automatic Control Council.

She is an associate editor of the American Society of Mechanical Engineers' *Journal of Vibration and Acoustics* and has been a guest editor for an issue of the *Journal of Structural Control*. She is also organizing the Seventh International Conference on Motion and Vibration Control, to be held at the University in August.

As a strong proponent of educational efforts, Dyke coordinates two summer research programs for undergraduates, one hosted at the University, the other at the University of Tokyo. She also developed and now directs the University Consortium on Instructional Shake Tables, an international cooperative improving education in civil engineering departments through the effective use of earthquake simulator lab stations.

Gupta

Title recognizes a great contributor to Olin

– from Page 2

Wheels program and the Glendale Presbyterian Church.

He is a member of the University's Board of Trustees and serves in a leadership capacity for a number of institutions and organizations, including the Eliot Society, the Donald Danforth Plant Science Center, and Citizens for St. Louis Symphony Ballot Proposal.

The individual and corporate donors of the new Virgil professorship are: Brown Shoe Co. Inc. Charitable Trust; Computer Sales International Inc.; Dr. and Mrs. William H. Danforth;

Edward Jones; Mr. and Mrs. Jerry L. Kent; Mr. Mark J. Lincoln; Dr. and Mrs. William J. Marshall; Anne and John McDonnell; Mrs. Hubert C. Moog; Mr. James V. and Kathy Gudermuth O'Donnell; Mr. and Mrs. Nicholas L. Reding; Mr. and Mrs. Howard L. Wood; and Dr. and Mrs. Jess B. Yawitz.

All the world's a stage

Edison's 2004-05 OVATIONS! Series highlights music, dance

Like a good vacation, filled with the sights and sounds of different lives, different heritages and different cultures, Edison Theatre's 2004-05 OVATIONS! Series will take audiences on a journey through some of the world's great music, dance and theater traditions.

The season will include both new and established artists of national and international stature. Meanwhile, the family friendly ovations! for young people series will return with specially priced Saturday matinees for audiences of all ages.

"2004 celebrates a spirit of exploration and an expansive world view," said Charlie Robin, executive director of Edison Theatre. "Lewis and Clark, the World's Fair and the Olympics — even Westward expansion — all illustrate the intrinsic human drive to reach and discover beyond the standard, the known.

"Our city is founded on diverse, global influences. It is only fitting that the 2004-05 OVATIONS! season reflects those global influences."

The season will open Oct. 23 with *Amazones*, an evening of extraordinary African drumming featuring, for the first time on one stage, **The Women Master Drummers of Guinea** and **Les Percussions de Guinee**. The result is a powerful, energetic and grandiose spectacle of music, song and dance.

Theater lovers can await the return of the **Aquila Theatre Company**, the professional company-in-residence at the Center for Ancient Studies at New York University, which will present the first-ever stage adaptation of H.G. Wells' classic science-fiction thriller *The Invisible Man* Oct. 29-30.

The **Reduced Shakespeare Company**, those "bad boys of abridgment," will unleash all-new comic outrages in their latest work, *All the Great Books (Abridged)*, Nov. 19-20.

On April 22-23, **Dan Hurlin's** *Hiroshima Maiden* will enlist Japanese Bunraku puppetry — a style characterized by life-like puppets possessing an astonishing emotional range — to tell the true story of 25 women disfigured by the nuclear blast at Hiroshima and their 1955 visit to the United States for reconstructive surgery.

For music lovers, **Liz Callaway** will return Jan. 15 with longtime friend and fellow balladeer **Jason Graae** in *Backstage Broadway Buddies*, an unforgettable cabaret evening of song and sentiment.

COURTESY PHOTO

Passing Zone, a "jaw-dropping and hilarious" (*Los Angeles Times*) juggling duo that boasts five Guinness world records and 18 International Juggling Association Championship gold medals, will conclude the OVATIONS! season May 6-7.

Solo cellist **Maya Beiser** will present *World to Come*, an evocative multimedia concert that combines text, vocals, lighting and video, Feb. 12.

On April 29-30, *Mystical Arts of Tibet: Sacred Music Sacred Dance* will showcase the magnificent costumes, traditional instruments, multiphonic chanting and ancient dance rituals practiced and mastered by the exiled monks of the Drepung Loseling Monastery.

Edison Theatre will again join forces with Dance St. Louis to present extraordinary dance companies from around the world.

The **Kansas City Ballet** will present a concert of solos and ensemble works — including *Nine Sinatra Songs*, which showcases the music of Old Blue Eyes and the choreography of Twyla Tharp — Nov. 12-14. **Les Ballets Jazz de Montreal** — which has been a force on the international dance scene since 1972, featuring dancers from the United States, Canada, France and Mexico — will perform Jan. 21-23.

The season will conclude May 6-7 with **Passing Zone**, a "jaw-dropping and hilarious" (*Los Angeles Times*) juggling duo that boasts five Guinness world records and 18 International Juggling Association Championship gold medals. From Chia Pets and Thigh Masters to chainsaws and audience members, it all flies through the air for this dynamic duo.

The ovations! for young people (oyp) lineup includes special matinee shows of *Amazones* (Oct. 23) and *Mystical Arts of Tibet* (April 30) as well as an oyp-only performance by the energetically acrobatic three-person dance troupe **Galumpha** (Jan. 15).

Individual tickets to OVATIONS! events are $28; $24 for seniors and WUSTL faculty and staff; and $18 for students and children. Subscriptions are available at the basic level (three, four or five events at $24 per ticket) and the premiere level (six or more events at $20 per ticket).

Ovations! for young people events are $7 each or $15 for tickets to all three.

For more information or to order, call the Edison Theatre Box Office at 935-6543, or e-mail edison@wustl.edu.

Eyes

Study reviewed 1,636 subjects between 40-80

– from Page 1

participated in the OHTS study.

Researchers also compared the African-American participants to the rest of the people in the study and found that among patients in the observation group — those who did not use pressure-lowering eye drops — about 11 percent developed glaucoma during the course of the study.

Looking at patients who received the pressure-lowering drops, the investigators found that 8.4 percent of African-Americans developed glaucoma, but only 4.4 percent of the other patients using drops developed the disease.

"We've known for some time that glaucoma is about four times more common in African-Americans than in Caucasians, and blindness from glaucoma is about six times more common in African-Americans," Kass said. "This study suggests that even when treatment is identical, the risk for African-Americans is still higher, even though treatment does help.

"We believe there must be other factors that help explain the differences, but the full explanation is not available right now."

To determine why some African-Americans are at increased risk, a team of University scientists has launched a new study that will compare gene expression in the optic nerves of African-Americans to age-matched Caucasians.

That study, funded by a five-year, $3.4 million grant from the National Eye Institute, will be headed by M. Rosario Hernandez, D.D.S., professor of ophthalmology and visual sciences.

"We believe that gene-based differences between African-Americans and Caucasians may be what underlies susceptibility to glaucoma," Hernandez said. "We plan to test that hypothesis over the next few years by studying the behavior of human cells taken from the two groups.

"If we find that certain genes are more active in optic nerve cells from African-Americans, we also might find that those same genes are overactive in Caucasians who develop the disease, providing a potential genetic target for assessing risk."

Hernandez and her colleagues will also compare differences in growth factors, nerve cell proliferation and cell migration in optic nerve tissues from African-Americans and Caucasians.

They will pay particular attention to the optic nerve head, the likely target of stress generated by high pressure in the eye.

"Our main goal is to determine how cells called astrocytes contribute to optic nerve degeneration in glaucoma," Hernandez said.

"Astrocytes are the major cell type in the optic nerve, providing structural and metabolic support to the nerve fibers."

But until Hernandez and her colleagues can identify genetic and other types of risk that make cells more vulnerable to damage from high pressure and glaucoma, researchers from the OHTS study say early detection and treatment of glaucoma is the key to a good outcome.

Notables

Bardach named associate dean, ExecEdge director at Olin School

Kenneth C. Bardach has been named associate dean and director of ExecEdge Corporate Education at the Olin School of Business, announced Stuart I. Greenbaum, Ph.D., dean and Bank of America Professor in the Olin School.

Bardach joins WUSTL from Case Western Reserve University, where he served as associate dean of executive education programs at the Weatherhead School of Management.

Bardach brings more than 30 years of academic and corporate experience to his post, having twice served in executive education director positions at Northwestern University's Kellogg Graduate School of Management, and having directed corporate management education and development programs for numerous organizations.

"I have had the privilege of working with Ken Bardach off and on for the past 30 years," Greenbaum said. "I know he is a consummate professional, a leader in the world of executive education and a man of uncompromising integrity. His presence at the Olin School will add luster to all we do."

As associate dean and director of executive education at Kellogg (1995-2002), Bardach doubled annual total programs, participant enrollments and program revenues, increasing profits by 120 percent. He developed 15 senior-level executive programs.

He served as associate dean and director of the master of business administration program at the Eli Broad Graduate School of Management at Michigan State University (1993-94) and as associate dean of masters' programs at the Rensselaer Polytechnic Institute School of Management (1987-1993).

At Rensselaer, he helped design and launch the Management and Technology M.B.A. Program and a new Executive M.B.A. Program. He also designed and delivered customized programs for IBM, General Electric, General Motors, Union National Bank, and the New York State Office of Mental Health.

COURTESY PHOTO

Leading the way Chancellor Mark S. Wrighton (left) is congratulated by Ed Rust, chairman and chief executive officer of State Farm Insurance Cos., upon Wrighton's election to the post of chair of the Business-Higher Education Forum. Wrighton, who served as vice chair from 2002-04, succeeds Rust and will serve as chair for the next two years. BHEF is composed of outstanding business and academic cheif executive officers — representing about 80 leading corporations and universities — who have joined together to examine issues of critical public concern and to, when appropriate, speak with one voice by issuing public policy papers on matters of national concern for dissemination and discussion. Members include corporate leaders from KPMG, Hallmark, Pfizer, IBM, Raytheon, TIAA-CREF, John Wiley and Sons and ACE, and universities including Michigan, Georgetown, Lehigh, Notre Dame and Purdue. Wrighton was elevated to the post at the BHEF meeting June 11-12 in Ann Arbor, Mich.

Klein

Will become a member of the University Council

– from Page 1

The University is projecting a budget for the fiscal year beginning July 1of more than $1.5 billion and an endowment of approximately $4 billion.

Klein will join executive vice chancellors Michael R. Cannon, J.D., Edward S. Macias, Ph.D., and Larry J. Shapiro, M.D., in working with Wrighton as the University's management committee. Klein will also become a member of the University Council.

In becoming executive vice chancellor for administration, Klein will succeed Richard A. Roloff as the University officer responsible for the CFU. Roloff will continue his full-time employment as a University officer, and after Sept. 1 he will be responsible for the coordination, management and planning of major capital projects, off-campus real estate and off-campus development.

Roloff will also help the University lead a regional initiative to revitalize the business potential of St. Louis through CORTEX — the Center of Research, Technology and Entrepreneurial Expertise.

CORTEX is being supported by the Missouri Development Finance Board, Washington University, BJC HealthCare, Saint Louis University, the University of Missouri-St. Louis and the Missouri Botanical Garden.

Roloff has served as an executive vice chancellor since 1991 and has led the University's expansion of its infrastructure, with $1.5 billion in expenditures for more than 25 new buildings and extensive improvements and renovations to existing structures and campus landscaping.

Prior to his association with the University as executive vice chancellor, Roloff was a member of the Board of Trustees from 1984-1991, when he was recruited by then-Chancellor William H. Danforth to join the administration's leadership team.

"Dick Roloff has been an exceptional contributor to the advance of Washington University — as a trustee, distinguished alumnus, and as a member of our leadership team," Wrighton said. "His work has been vital to the progress we have made, and I am grateful for his commitment to remain a key member of the administration as we look to the future."

"It is important to note that beginning in the early 1970s, Dick Roloff made key contributions to the Washington University Medical Center redevelopment effort, which has proven to be critical to our emerging as one of the most outstanding academic medical centers in the world.

"Working closely with Chancellor Danforth, Roloff guided the medical center's development, and I am grateful that he will continue to assist us in the CORTEX initiative that will bring important benefits to the entire St. Louis region."

"I am delighted that John Klein has agreed to join our top management team as our executive vice chancellor for administration. His long and successful tenure as the top corporate officer at Bunge North America brings extraordinary experience and leadership skills to help us continue the upward trajectory of the University."

MARK S. WRIGHTON

Klein earned a bachelor's degree from Princeton University in 1967 and a law degree from the University of Michigan in 1971.

Prior to joining Bunge, he was associated with the law firm of Sullivan & Cromwell in New York for four years.

Klein has had an active role at Washington University and the St. Louis region.

He serves on the national council of the Olin School of Business and served as trustee and treasurer of MICDS from 1991-2000.

From 1989-1990, he served as a trustee of Greenwich Academy in Connecticut. From 1967-68, Klein was a teaching fellow at International College in Beirut, Lebanon.

Klein is a trustee of the Missouri Botanical Garden and the St. Louis Science Center and a founding director and treasurer of the Shakespeare Festival of St. Louis. Klein is also involved with the St. Louis Coalition for Plant and Life Sciences, the Donald Danforth Plant Science Center and the World Agricultural Forum.

He served as a trustee of the Saint Louis Art Museum from 1991-94. Klein also serves on Lincoln Center's Consolidated Corporate Fund Leadership Committee in New York City.

Klein has been married to Susan Verklin Klein since 1970, and they have two children, Jennifer and Thomas, both MICDS and Princeton University graduates.

Prior to his appointment as executive vice chancellor, Roloff served as president of Plaza Development Co., which was responsible for the building of The Ritz-Carlton Hotel in Clayton.

A 1951 graduate of the Washington University School of Engineering, Roloff has become a leader in St. Louis business development. Before becoming president of Plaza Development Co., he was president of Capitol Land Co..

Other projects with which he has been involved include the development of Plaza Frontenac and the planning for the Gateway Mall. In 1991, he was named "business person of the year" by the Clayton Chamber of Commerce.

As a volunteer, Roloff has been active in the revitalization of the Central West End through his support and leadership of the Washington University Medical Center Redevelopment Corp.

In 1976, he received the University's School of Engineering & Applied Science alumni achievement award and has been a member of the national council for the school.

In 2000, he received the Dean's Medal from Arts & Sciences for his distinguished and enduring contributions to the advance of the University.

Obituaries

Schechter, asst. professor emeritus, 87

BY GILA Z. RECKESS

Samuel E. Schechter, M.D., assistant professor emeritus of clinical medicine and a 1941 alumnus of the School of Medicine, died Monday, May 24, 2004, in University City after a long illness. He was 87.

In addition to his 40-year career at the University, Schechter was a generous supporter.

In honor of his two children who lost their battles with depression, he established the David Joel Schechter and Leslie Schechter Memorial Fund for Research in Depression.

In memory of his wife, who died of pancreatic cancer at age 72 in 1995, he began the annual Rena Schechter Memorial Lecture in Cancer Research.

Most recently, he established the Samuel E. Schechter Professor of Medicine, now held by his longtime friend and colleague Gustav Schonfeld, M.D.

In addition to his gifts to the School of Medicine, Schechter established the Miriam Schechter and Kay Schechter endowed scholarships in Arts & Sciences in honor of his two surviving daughters.

Schechter received the Second Century Award from the School of Medicine in September 2002 in recognition of his significant role as both a member of and a contributor to the medical school.

In 2002, Schechter married Norma Bonham.

Contributions may be made in Schechter's memory for medical student scholarships to Washington University School of Medicine, Campus Box 8509, 4444 Forest Park Ave., St. Louis MO 63108.

Alternatively, contributions may be sent to the Tribute Fund at the Missouri Botanical Garden (P.O. Box 299, St. Louis, MO, 63166).

Esterbrook, pediatrics billing services, 41

BY GILA Z. RECKESS

Stephen Esterbrook, on staff in the Pediatrics Central Administration office, died at his home of an apparent heart attack on Tuesday, June 8, 2004. He was 41.

According to longtime friend James M. Hanson, manager of clinical information systems for the faculty practice plan, Esterbrook was a "fantastic person."

"He had an infectious laugh, and brightened everybody's workday," Hanson said. "He'll be dearly missed by both his friends and his work associates."

Esterbrook joined the University's physician billing services team in November 1995 and transferred to the Department of Pediatrics' billing services in October 1999.

"Stephen could bring a smile to your face just when you needed one," says Michael Johnessee, supervisor of insurance, billing and collection in the Department of Pediatrics. "In the hearts of all who knew him, he was a pleasure to be around and work with."

Esterbrook's hobbies included bowling and collecting information on the British royal family.

He is survived by his sisters, Mary Helen Peters and Jane Ann Leitl, and by his niece and nephews, Mark Peters and Brooke and Adam Leitl.

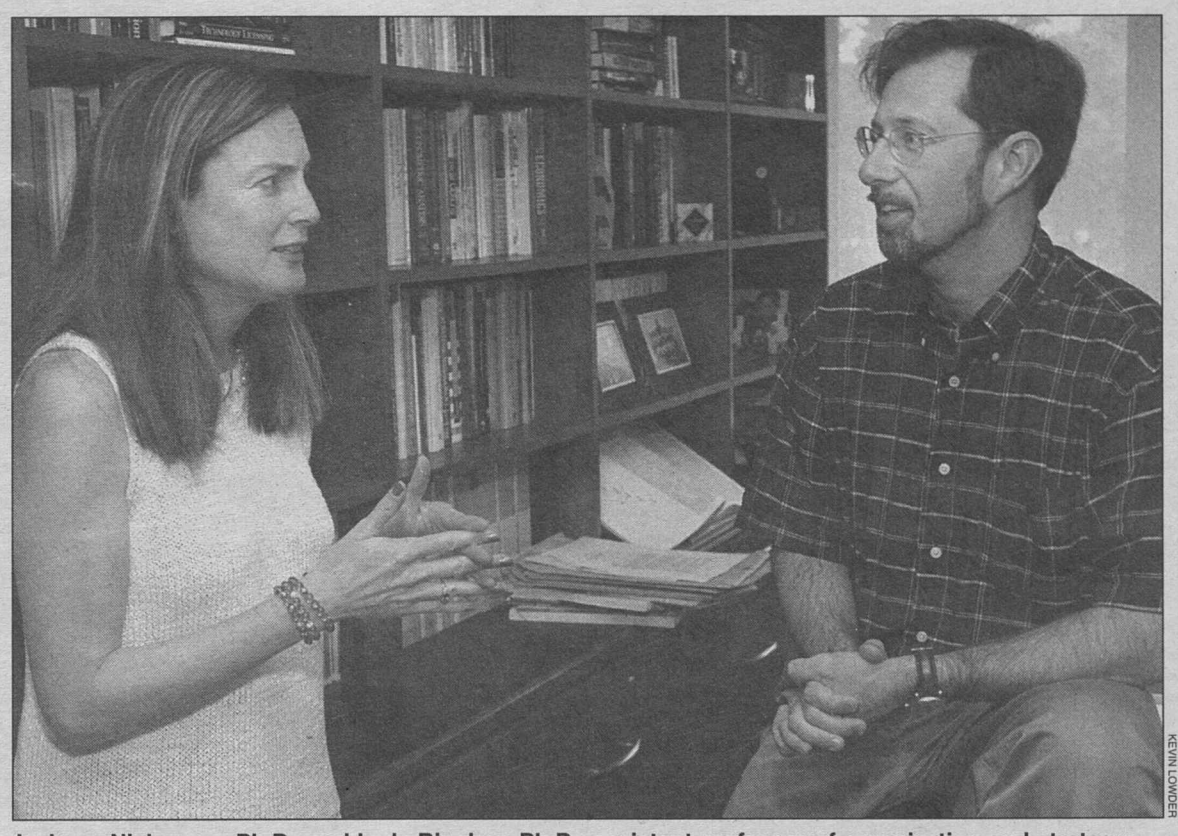
Ross, 92

Jane Lois Ross, who worked in the Department of English in Arts & Sciences helping business students improve their language skills, died Friday, April 9, 2004, in Ladue, Mo. She was 92.

Kirk, 94

Irma Louise Kirk, who worked in the gerontology department in the School of Medicine following World War II, died Tuesday, May 11, 2004, in Springfield, Mo. She was 94.

Washington People



KEVIN LOWDER

Jackson Nickerson, Ph.D., and Lyda Bigelow, Ph.D., assistant professor of organization and strategy, discuss their classes. Georgetown University colleague Jeffrey Macher says of Nickerson, "I have yet to meet someone as well-organized and efficient at getting things done."

Nickerson has knack for success

Olin associate professor solves problems in classrooms, buildings and parking lots

BY DEBRA M. SCHWARTZ

One day last fall, Jackson Nickerson looked down from his second-story office in Simon Hall to the newly redeveloped parking lot below. He spotted trouble brewing.

While cars raced about, students streamed across the lot, oblivious to the dangerous traffic. Nickerson saw an accident in the making and took up the cause, quickly producing a video that documented the action.

With evidence in hand, he used his position on the University's Undergraduate Council to install speed bumps and a metal fence that made it safer for students walking from the South 40 to campus.

Problem solved.

Nickerson, Ph.D., associate professor of organization and strategy in the Olin School of Business, has also worked wonders inside Simon Hall. Until last year, his office was decorated in a style that might charitably be called downtown chic, but to Nickerson's eye the mismatched furniture was just bad news.

Thinking that his colleagues might share his sentiments, he organized about 30 of them and cut a deal with the Closet Factory to design and install custom-made cabinetry at a deep discount. Today, many Simon Hall offices have a polished appearance befitting the boardroom, not the backroom, thanks to Nickerson's fix-it efforts.

Nickerson's problem-solving skills extend to all aspects of his life. His colleague at Georgetown University, Assistant Professor Jeffrey Macher, says, "I have yet to meet someone as well-organized and efficient at getting things done."

But Nickerson saves the best of his makeover talents for his students and for the long list of diverse companies that he studies.

With his easy-going manner and the appealing looks of the late actor John Ritter, it's easy to imagine how the 41-year-old Nickerson might win over his students with simple charm. So it's surprising that he prefers to administer a stern dose of "tough love" in Management 100, a required course for freshmen entering the business school.

He sets the tone on the very first day, cold-calling on nervous young men and women who'd rather raise their hands when they have something to say. A "wave of fear rolls across the class," he says, but he keeps the pressure on for the next several weeks.

"I drive them hard," he says. "I give them a very hard first exam," and many fail. Then Nickerson invites the struggling students to his office for a conversation.

"I sit down with each of them for 15 or 20 minutes. This could be 120 kids. This consumes my month of October. Very quickly I figure out where their weaknesses are. Is it the way they study? Is it the way they take notes? Is it the way they read? The way they take exams? …

"By the eighth week, they get on board. … Most students end up doing very well (and) remember this course as a transforming experience. … They are set up for the next three-and-a-half years. … They've made the transition from high school to college."

Students and colleagues agree that Nickerson's classroom strategy works, rewarding him with numerous teaching awards since he came to the University eight years ago. In January, he accepted the 2003 Governor's Award for Excellence in Teaching from the Missouri Department of Higher Education.

JOE ANGELES

One of Nickerson's great pleasures in life is taking his children Will, 8, and Genevieve, 5 (and three-quarters!), to school on a tandem tag-along bike every morning.

Nickerson has researched several companies in unrelated industries such as trucking, information technology, and, most recently, the pharmaceutical industry. Just as he gets to know the needs of individual students, he figures out what distinguishes each company and studies ways to match the company's activities with the appropriate organizational choices.

"Just about all the papers that I've written tie into organization choice: teams or no teams, centralization or decentralization, make or buy," he says. "It's not just the organization choice that is important, but also how that choice translates into performance."

Unlike his colleagues in more specialized business fields, Nickerson, an expert in organization and strategy, looks at things holistically. His wife, Cici, a librarian who has worked in the business school's Kopolow Library, says her husband "can see the forest," as well as the trees.

Nickerson explains, "I care about finance; I care about economics; I care about marketing; I care about operations; I care about organizational behavior. We're integrating all of these different functional specialties into one gestalt — one big picture."

But he insists there are no universal answers in business. "It's about matching, not about one mode of organization always being superior to another."

His two-part study of the pharmaceutical industry, being conducted with Georgetown's Macher, examines company operations as well as Food and Drug Administration (FDA) regulations, which will soon be revamped for the first time in 25 years with input from the study.

"There's no one that we are aware of today studying (pharmaceutical manufacturing) from a management and organization perspective," Nickerson says. "There are huge opportunities to understand production, find ways to improve it from an organizational perspective, and to help the FDA understand how to change their regulations to not only assure safety, but then to improve on these other measures of productivity."

Nickerson says that changes in regulation and organization could lower drug prices by as much as 15 percent to 20 percent.

Significant results like these lead Olin School of Business Dean Stuart I. Greenbaum, Ph.D., to say, "Jackson Nickerson is a gifted teacher and scholar with a keen eye for policy impact. He is also a totally engaged citizen of our community who argues his views with reason and passion."

Nickerson suggests that the University has made organizational choices that foster community.

"I think WashU is a great place," Nickerson says. "It's a collegial place. It has a great culture, and the culture is very much about relationships. …

"At least in the business school, I don't think we have a star system, which is very good. A star system tends to lead to these problems of envy and animosity," which Nickerson also studies.

Assistant Professor Hideo Owan, who has co-authored several papers with Nickerson, says that his friend's outgoing nature helps him make the most of the University's open culture. He "is a great collaborator," Owan says.

"If he doesn't have a full range of necessary skills to analyze complex problems, then he will talk to people with the needed skills, make them excited about the idea, and then start working with them," Owan says. "He is always excited about something."

Envy, Nickerson argues, negatively impacts the collaboration and productivity that he values so highly — both on a personal level and organizationally. He notes that a "highly differential reward system," like a star system, is one of the things that can jeopardize collaboration and lead to envy and undesirable behavior.

"We study how envy causes management to adopt certain organization structures, incentives and internal procedures in order to provide a certain degree of egalitarian environment to encourage coordination and communication," Nickerson says.

To ameliorate envy and solve complex problems, Nickerson says, "you want people to work as a group," which usually requires that people with complementary skills and talents work in close proximity.

This is precisely the setup he sees on his corridor in Simon Hall. One of the tidy "Nickerson Rules" he has created states: You tend to interact with those people within plus or minus 20 feet of your door. If you have people from other areas, other disciplines, within 20 feet of your door, you get a great exchange and interaction where you identify interdisciplinary issues.

While envy is not much of a problem in Nickerson's professional life, he admits that it's the "biggest issue" with his children, 8-year-old Will, and Genevieve, a proud 5 and three-quarters. Collaborative teamwork at home, as at the office, does much to eliminate the strains between the siblings.

And the tandem with a tag-a-long bicycle that Nickerson uses to transport the children to New City School each day is a gigantic help. Will says that he enjoys pedaling in sync with his dad; Genevieve contributes by changing the gears as directed.

The kids are totally jazzed about bike riding, echoing their father's sentiments about his life at the University: "I'm here because I'm jazzed. I love what I do."

Jackson Nickerson

Title: Associate professor of organization and strategy, Olin School of Business

Degrees: Ph.D., 1997; M.B.A., 1990; M.S.M.E., 1986; University of California, Berkeley; B.S.M.E., 1984, Worcester Polytechnic Institute

Hobbies: Woodworking, bicycling, coaching kids' sports

Screensaver: A giant antenna that Nickerson worked on as a young mechanical engineer. "This antenna is 100 meters tall and 70 meters from here to here. I designed control algorithms to track *Voyager I* and *Voyager II* to communicate with the Mars landers."

Recent books read for fun: Harry Potter and *Guns, Germs, and Steel: The Fates of Human Societies*, by Jared Diamond. Nickerson also is a big fan of *The Zone: A Dietary Road Map to Lose Weight Permanently*, by Barry Sears and Bill Lawren.

Last professional article read: "To Build a Winning Team: An Interview With Head Coach Bill Walsh," by Richard Rapaport, *Harvard Business Review.*

Historical fact: Nickerson's ancestors founded Chatham, Mass., on Cape Cod. Today, visitors can spend the day at Nickerson State Park. For generations, his family trolled the Atlantic for cod and swordfish.